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# MO-G822000 General Operating Permit for Meat Processors

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Water Protection Program technical bulletin

4/2004

This technical bulletin describes some of the permitting requirements and appropriate wastewater treatment systems for meat processing facilities under the MO-G822000 General Operating Permit. This permit covers the land application of wastes from light commercial Food Products Industry Major Group 20 (Standard Industrial Classification (SIC) Codes 2011-2099) and restaurant grease traps (SIC Code 5812). However, this technical bulletin is written only for the meat processing industry as described below.

These meat processing facilities generally process 500 to 700 hogs per year and 300 to 500 cattle per year. An equivalent number of deer or other animals may be processed per year. Dry weather design wastewater flows are less than 10,000 gallons per day. The facilities are designed for no-discharge to surface waters. No-discharge facilities that generate less than 1,000 gallons per year and that are in compliance with Missouri Water Quality Standards are exempt from the permit requirements.

Facilities that are of the types listed above and do not discharge into a public sewer system will need to either obtain this General Operating Permit or a site-specific permit. The General Operating Permit requires an annual fee of \$150, while a site-specific permit requires an annual fee of \$3,500.

Under the General Operating Permit, final disposal of treated wastewater or sludge must be in the form of land application. The land application of the wastes must be onto agricultural land for use as fertilizer and soil amendment. The wastes must be land applied in accordance with an approved Land Application Management Plan that conforms to the Best Management Practices and other requirements contained in the General Permit.

In order to apply for the General Operating Permit, a Form E must be completed and submitted, with all required documents, to the Missouri Department of Natural Resources, Water Protection Program, P.O. Box 176, Jefferson City, MO 65102. Form E may be obtained from the Code of State Regulations, 10 CSR 20-6.010.

The application must include all documentation required, including a completed application, a map showing the facility in relation to the local roads and receiving streams, a 1" = 2000' scale United States Geological Survey (USGS) topographic map, plans and specification stamped by a professional engineer registered in the state of Missouri, and a Land Application Management Plan. The application must be approved by the department's Water Protection Program before construction begins.



The recommended treatment system for use under the G822 General Operating Permit is a septic tank followed by a storage lagoon with a land application system. This type of system should be constructed as follows:

A typical septic tank (approximately 1,000 gallons) must be installed to serve as an oil, grease and solids trap.

Following the oil and grease trap, an earthen basin (lagoon) must be constructed in series with the septic tank. The lagoon must have a volume sufficient to store 60 - 120 days of wastewater flow and the amount of rainfall from the wettest one-in-ten year precipitation for that time period less evaporation for that same time period. In addition, the lagoon must have volume sufficient to store the amount of rainfall from the 25-year 24-hour storm event.

Following the lagoon, a land application field and a wastewater application system must be installed or made available. A wastewater application system could consist of the following: pump(s) and sprinklers, center pivots, traveling guns, etc. The area of land needed for application is determined by the type of vegetation, slope of the land, geohydrologic characteristics, level of treatment, and other factors.

A construction permit is required for installation of any storage structure. The plans and specifications of the storage structure must be submitted with the application for a construction permit and they must be designed and sealed by a professional engineer registered in Missouri. As-built plans and specifications and an operating manual must be submitted with the application for the general permit.

The land application field must be large enough to ensure that treatment lagoon liquids are not applied at rates greater than 0.2 inch/acre/hour, 0.5 inch/acre/day, 1.0 inch/acre/week, and 12 inches/acre/year.

For complete permit requirements see 10 CSR 20-6, 10 CSR 20-7, and 10 CSR 20-8.

## **For More Information**

For more information on water pollution control permits, contact:

Missouri Department of Natural Resources  
Water Protection Program  
P.O. Box 176  
Jefferson City, MO 65102-0176  
1-800-361-4827 or (573) 751-1300 office  
(573) 526-1146 fax  
[www.dnr.mo.gov/wpscd/wpcp](http://www.dnr.mo.gov/wpscd/wpcp)

Missouri Department of Natural Resources  
Environmental Assistance Office  
P.O. Box 176  
Jefferson City, MO 65102-0176  
1-800-361-4827 or (573) 526-6627  
[www.dnr.mo.gov/oac/env\\_assistance.htm](http://www.dnr.mo.gov/oac/env_assistance.htm)